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EXAMINER

CHUNG, JI YONG DAVID

ART UNIT PAPER NUMBER

2143

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/034,260	HUBBARD, THOMAS	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ji-Yong D. Chung	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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**DETAILED ACTION**

***Response to Remarks***

1. Applicant's arguments and amendments filed on August 16, 2005 have been carefully considered but they are deemed moot in light of new grounds of rejection.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 13, 17, 22 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Each of the above-referenced claims substantively refers to "controlling a target computer through a browser without the target computer transmitting to the wireless-client device data that specifies the content of the target computer's GUI-display screen." However, the feature is not supported by the specification.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-4 and 6-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Muta, in view of Abdulrahiman et al (Pub. No. 2003/0023671, Abdul hereinafter) and Smethers (Pub. No. 2003/0040340)

With regard to **claim 1**, Muta discloses a method of allowing a target computer to be remotely controlled through a browser, the method comprising:

*accepting a connection from the browser* [the feature is inherent in any server-browser system, in which the browser connects to a web server and obtains a webpage from it. See browser 213 and a web server 241, in Fig. 3]

*wherein the browser is executed by a wireless client device* [see the discussions of claims 2 and 3 below. The browser in the wireless client device is discussed];

*downloading to the browser a web page containing remote-control user-interface elements* [See lines 13-22, column 8. HTML file is is accessed];

*receiving a message generated in response to a user interacting with at least one of the remote-control user-interface elements, wherein the message indicates at least one keyboard event to be simulated on the target computer* [See lines 6-61, column 9. The operator controls the slave server via an applet; keyboard events are simulated. See Fig. 18]; and

*simulating at least one keyboard event based on the received message* [See from line 63, column 9 to line 2 column 10, in conjunction with the lines 6-52, column 9],

Muta does not show, but Abdul shows:

*such that the target computer is remotely controlled through the browser without the target computer transmitting to the wireless-client device data that specifies the content of the target computer's GUI-display screen* [See paragraph 0035, 0038 and 0039. Abdul indicates that the information from the server will be modified to suit the wireless device. In the context of a handheld device, information that is sent will no longer specify the content of the target computer, because the handheld device doesn't support the same graphical user interface].

It would have been obvious to one of ordinary skill in the art at the time of the invention to reduce or eliminate the transmission of server (i.e., target) GUI or display information to the controller, because the handheld device has bandwidth constraint (see paragraph 0004 and 0005 in Abdul). By implementing the Abdul's system, the proxy server will transmit data that conforms to the bandwidth requirement of the hand-held device. Such data will no longer "specify the content of the target computer's GUI display screen," because the graphical data format for the server and the handheld devices will be different. As indicated in paragraph 005 of Smethers, the mobile devices have very small displays, limited memory and compact keypads.

With regard to **claim 2**, Muta *shows the accepted connection is an HTTP connection from a wireless-access gateway*. See lines 13-22, column 8 for HTTP connection. See from line 61, column 6 to line 24, column 7 for portable phone ("wireless device"). A wireless access gateway is inherent for the wireless device that connects to a network.

With regard to **claim 3**, Muta does not directly show that *browser is a wireless-access browser*. However, Muta does show a browser and indicates it may run on wireless device such “palmtop PC” or “a portable telephone.” See the above discussion on claim 2. The browser, which Muta shows, on the portable telephone would be a “wireless-access browser.” See from line 61, column 6 to line 24, column 7.

With regard to **claim 4**, per its limitation, *the wireless-access browser and the target computer communicate through a wireless-access gateway*, see the discussion of claim 2 and 3, which contain all of the limitations of claim 4.

With respect **claim 5**, Muta shows that *the remote-control user-interface elements comprise virtual keyboard keys*. The keys on the controller function as keys to the server. That is the keys on the remote device acts as virtual keys to the slave server. See lines 43-52, column 9. See lines 9-30 in column 10.

With respect to **claim 6**, Muta does not show that *the remote-control user-interface elements comprise hypertext markup language buttons*. However, many Internet web pages contain HTML buttons and Muta uses an HTML page.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use HTML buttons to implement a few of user interface functions, because buttons are widely used for web page user interfaces to facilitate client controls.

With respect to **claim 7**, Muta does not show that *the remote-control user-interface elements comprise wireless markup language select elements*. However, in Muta's embodiment that involved portable telephone, the installed software would logically use wireless markup language (WML) – it is the standardized language to handle wireless devices. Note that many Internet web pages show the use of select element (e.g., buttons); this limitation has been discussed with respect to claim 6.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use WML select elements, because WML is the standard markup language for wireless devices such as a portable telephone.

With regard to **claim 8**, Muta shows that *the accepting, the downloading, the receiving, and the simulating are each performed by the target computer*. See lines 19-50, column 10. The passages describe the process of “downloading” (having information sent to the receiving computer), “receiving”, and “simulating” (how the events are given to the event buffer).

With respect to **claim 9**, Muta does *not show that received message is contained in a query portion of an HTTP request*. However, Muta shows applets on the master server and the slave server. Applets generally makes requests to CGI programs on servers over HTTP protocol. Such requests routinely contain “query” components that encode information.

It would have been obvious to one of ordinary skill in the art at the time of the invention to piggyback messages on a query portion of HTTP request, because Muta uses applets, which

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are used to make HTTP requests to CGI programs. HTTP requests to CGI programs generally contain query portions that piggyback various messages.

With respect to **claim 10**, Muta shows *that the at least one keyboard event comprises sending an operating system key event to an active application on the target computer, except that Muta does not show the active application*. See lines 6-52, on column 9. Applet controls the slave server; keyboard events are simulated. See Fig. 18.

However, any active application, which is under input focus, would be controlled.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Muta's invention to control the target OS and therefore any application that can be invoked within the same operating environment, because Muta's invention was designed to control the overall system: one would thus control any application which runs on the "slave server" (i.e., target computer). See the summary of the invention in Muta.

With respect to **claim 11**, Muta does not show *simulating the at least one keyboard event comprises simulating a press-and-hold operation for at least a first key while simulating a press and then a release of at least a second key*. Muta shows keyboard in lines 33-46, column 9. While Muta does not show the specific key combination event described in claim 11's limitation, Muta speaks of events in lines 9-55, column 10. In the context of Windows NT operating system (see lines 35-50, column 7), the events are Windows events; Windows events include mouse events and keyboard events and can express all required key combination events.



It would have been obvious to one of ordinary skill in the art at the time of the invention to implement any key combination presses in order to control the slave server, including the ones described in the limitation, because the Muta's invention operates in tandem with the operating system event handler (e.g., Windows NT operating system event handlers. See lines 35-50, column 7 for the list of operating systems in Muta's invention). Windows operating system event handler *is designed* to translate any keyboard and mouse inputs.

With respect to **claim 12**, Muta does not *show that the received message is part of an HTTP POST*. However, POST is a command in HTTP protocol.

It would have been obvious to one of ordinary skill in the art to use either POST or GET, because they are command in HTTP protocol, designed for sending messages (i.e., Using something in accordance with its designed purpose is obvious).

With respect to **claim 13**, all of the limitations except the following have been discussed with respect to claims 1-4 and 8: *the keyboard event server* [See slave daemon in Fig. 3].

**Claims 14-16** incorporate the limitations of claims 7, 9 and 12, but they depend on independent claim 13 rather than on independent claim 1. Nonetheless, the reasons for the rejections of claims 7, 9, and 12 apply to claims 14-16. Therefore, claims 14-16 are rejected for substantially the same reasons.

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**Claims 17 and 18** delve into one additional element that has not been described in claims 1-16. Specifically, they describe wireless-protocol encoding and decoding of HTTP response and request. Muta indicates that Muta's invention maybe on a portable phone, a wireless device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to overlay HTTP protocol over a wireless-protocol (that is provide, encoding and decoding for WP), because the use of wireless phone would necessitates the use of wireless protocol-encoding/decoding in addition to HTTP protocol (or some modified version of it). Muta shows the use of wireless phone from line 61, column 6 to line 4, column 7.

**Claims 19 and 21** are software product versions of claim 18 and 16, respectively.

Claims 19 and 21 are rejected based on the same rationale as claim 18 and 16.

**Claim 20** is a software product version of claim 4. It is rejected based on the same rationale as claim 4.

**Claim 22, 23, and 27** substantively incorporate the subset of limitations in claims 1-4, 8 and 13, but in apparatus form rather than in method form. The reasons for the rejections of claims 1-4, 8, and 13 apply to claims 22, 23 and 27. Therefore, claims 22, 23, and 27 are rejected for substantially the same reasons.

**Claims 24 and 26** incorporate all the limitations of claims 7 and 11, but in apparatus form rather than in method form. The reasons for the rejections of claims 7 and 11 apply to claims 24 and 26. Therefore, claims 24 and 26 are rejected for substantially the same reasons.

With regard to **claim 25**, its limitation on wireless-protocol encoding has been discussed with respect to claims 17 and 18.

With respect to **claim 28**, Muta shows that *the received message comprises at least one mnemonic corresponding to the at least one simulated keyboard event*. See Fig. 17. Whatever is transmitted from the server is a representation of the keyboard event, thus a mnemonic (e.g., Event.MOUSE\_MOVE, Fig. 17. The transmitted event is received, of course, at the receiver).

*Conclusion*

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji-Yong D. Chung whose telephone number is (571) 272-7988. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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